

pager for communication purposes. The pagers vibrate and beep to notify the customer. The present invention is more than just a pager, the Receiver allows the customer to interact with the device through the display and keypad. There is two way communication between the Receiver and customer.

Furthermore, the present invention adds a far reaching network to the device. Each of the receivers can receive and transmit information, either directly or indirectly, to a Software Programmer. The Software Programmer is a central computer that manages all the information in all the businesses where the Receivers are installed. From the Software Programmer can be sent unique application and advertisements to each of the Receivers. In addition, each Receiver can send user information to the Software Programmer. The communication between the Software Programmer and Receiver can be direct or through the Charger or Transmitter depending on the embodiment of the invention.

For example, there may be a movie application that allows customers to review the movie schedule and previews for a cinema near a business. The present invention loads the movie applications into the Software Programmer. The Software Programmer downloads the application, either directly or indirectly, to all the Receivers in the business near the cinema. A customer can view the schedule and reserve tickets. The reservation is communicated back to the Software Programmer for processing.

The Examiner has rejected claim 1 under 35 USC 112 as based on a disclosure which is not enabling. The Examiner states that the devices; a receiver, a transmitter and a software programmer; are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. According to the specification,

a receiver, a transmitter and a software programmer are not in one unit or a device.

Applicant has amended the claims to state that the receiver, transmitter and software programmer are part of an electronic paging system, and not a device. Applicant has amended the claims as requested by the Examiner to further define each component of the system.

The electronic device comprises a Receiver, the Receiver can be a hand held device similar to a PDA. It provides the interface between the customer and the rest of the system. It contains a processor to control hardware components, including communication interfaces. The communication interface can be through direct contacts, telecommunication line or a wireless interface. The processor can also manage power consumption, memory usage and data flow management.

The Transmitter is a device used by the business to communicate to all or some of the devices in the system. It contains a processor to control hardware components including communication interfaces. The communication interface can be through direct contacts, telecommunication line or a wireless interfaces. The processor can also manage power consumption, memory usage and data flow management.

The software programmer is a central computer, either PC or server based, that communicates with the devices at all of the business locations. It uses telecommunication networks to communicate. The telecommunication network interfaces can include, but are not limited to modem, Internet or wireless networks. The software programmer can be integrated with a database and/or the worldwide web to manage software contents and information.

The charger is not required in all system configurations. It acts as a docking station or cradle for the Receivers. The chargers can communicate with other devices through direct contacts, telecommunication line or a wireless interface. The processor can also manage power consumption, memory usage and data flow management.

The Receiver, Transmitter, Software Programmer and Charger are typically separate hardware pieces that are created as one through their communication network and put together to function as one unit or system.

The Examiner has rejected claims 9-10 under 35 USC 112 as being indefinite for failing to point out what is included or excluded by the claim language. That is a receiver in claims 9-10 cannot upload or download to charger, transmitter and/or wireless service provider. It can only receive information from a device.

As stated in claim 9-10, the receiver is a two way device. On page 3 of the specification, it states that the Receiver can upload or download software and data to and from the Charger. The Receiver can upload or download software and data through conductive contacts. The Receiver can perform a wireless upload or download to the Charger, Transmitter and/or wireless service provider. A patentee can be his own lexicographer and can define terms in the specification.

The Examiner has rejected claims 1-2, 7-8, 11 and 18-21 as being anticipated by Love green, 5,814,968.

Regarding claim 1, the Examiner states that Lovegreen discloses an electronic devices (Fig 5, col. 1 lines 49-59, paging coaster) comprising; a receiver (col 1, lines 49-59, pager receives signals); a transmitter (col. 1 line 49-59, server transmits or pages by

sending signals to pager); and a software programmer (col. 6, lines 43-51, reprogramming the electronic device by downloading the software.

Lovegreen does include a receiver, a transmitter and a charger, but not a software programmer. Lovegreen is a charging system for standard local paging systems.

Lovegreen relates to a battery charger and electronic device assembly for recharging stackable electronic devices in multiple orientation or rotation with respect to each other with the need for either removing batteries or plugging devices into charging racks.

When Lovegreen refers to a "communication signal to reprogram the electronic device" he is referring to what is referred to in the present invention as the Charger. The programmer of the present invention introduces remote networking capability to exchange and manage data and multimedia content of any type.

Currently, paging systems are comprised of a transmitter, receiver and charger as described in Lovegreen. Typically the transmitter is held by the business employee to transmit or call the receiver which is held by the customer. A charger is used to recharge the batteries of the hand unit and to exchange data between receivers. Further, amended claim 1 requires that the receiver have a display and an interface, neither of which is present in Lovegreen. Further, claim 1 requires that the software programmer upload and download software to and from the transmitter or receiver. This is not taught by Lovegreen.

Regarding claim 2, the Examiner states that Lovegreen discloses a charger (col. 6 lines 43-54, a charger or base unit (10)).

Claim 2 discloses a device comprising a Charger, a Receiver, Transmitter and Software Programmer. The Software Programmer is a unique aspect of the claim, which

is not present in Lovegreen. Further the Receiver as claimed is also not taught by Lovegreen.

Regarding claims 7-8, the Examiner states that Lovegreen discloses said receiver can download software and data from said charger (fig. 5, base unit (10) and through conductive contacts (col. 6 lines 43-54, reprogramming the electronic devices (20) via conductive contacts (col. 6, lines 35-42, physical contacts)).

See the response to claims 1 and 2 above.

Regarding claim 11, the Examiner states that Lovegreen discloses queue status (col. 1, lines 52-55, notification to be seated to the table, that is the table is queued for you to be occupied).

Claim 11 has been amended to add the elements found on page 6 of the specification to state that the queue status includes providing updated information as to where a user is in the queue, not just paging the user when their table is ready. Lovegreen allows for paging that informs a customer that a table is ready and not the queue status.

Regarding claims 18-21, the Examiner states that Lovegreen discloses a single charger that can support many receivers at one time (Fig. 5, chargers (10a-b) and receivers or pagers (20a-f), said charger can support both charges and stores software (col. 6, lines 43-51, reprogramming the electronic devices from said charger), said charger stores information relating to how and when said receiver was used (col.5, lines 18-22, providing stored information to paging coasters), and said charger can download software through hard media (Fig. 5, reprogramming the electronic devices through terminals (57a-b and 58a-b)).

Lovegreen's device does not include the components of the claims of the present invention as stated above for amended claims 1 and 2.

Regarding claim 20, Lovegreen col. 5 lines 18-22 refer to applying their stackable charging method to other electronic devices and not on a Charger being able to secure information on how the receiver is used. In addition, the receiver of the present invention is unique in providing a user interface to interact with the user whereas with the device of Lovegreen, the user can not interact with the device and therefore there is no information on how the receiver was used.

Regarding claim 21, Lovegreen states that his charger can transfer data to and from receivers through terminals. Lovegreen does not mention being able to install software into the Charger from external devices so that data can then be downloaded to the receivers. Lovegreen's system is a closed system that does not communicate with external devices. The system of the present invention allows the Charger software to be updated using various methods from a diskette (claim 21 & 22), a telecommunication line (claim 23) or wirelessly (claim 24).

The Examiner has rejected claim 12 as being obvious over Lovegreen in view of McNally, 5,850,214. The Examiner states that Lovegreen discloses paging coasters (col. 1 lines 49-59, paging coasters) to notify the customer to be seated at individual tables. But, Lovegreen does not disclose the transmitter tracks the last several pages that were made. However, McNally discloses, in the art of restaurant paging system, the transmitter tracks the last several pages that were made (Col. 5, lines 32-65, restaurant wait list mode of the clipboard acts as transmitter to transmit the waiting status to the pager, and updating the paged status by providing the light) to control the seating

arrangement of the restaurant. Therefore, it would have been obvious to include the transmitter tracks the last several pages that were made in the device of Lovegreen because Lovegreen suggests paging coasters to notify the customer to be seated at individual tables and McNally teaches the transmitter tracks the last several pages that were made to control the seating arrangement in the restaurant.

The transmitter has typically been a keypad and display to enter the code of the receiver that is being paged. McNally has created an improved transmitter. The McNally transmitter provides additional information and functions to help the transmitter operator. He also includes the ability for the business to interface with the transmitter to update data and better communicate with the transmitter operator.

The system of McNally and Lovegreen only considers a local system including a Transmitter, Receiver and Chargers. There is nothing taught in McNally or Lovegreen to combine the teachings. In fact one would have to add extra devices to Lovegreen to combine the teachings. Lovegreen is purely a paging device, and there is nothing in Lovegreen which would suggest to add a tracking means.

McNally relates to an information management system and method which incorporates an electronic clipboard having a paper form integrated with projected lights as the user input and output interface. The electronic clipboard uses a combination of components, e.g., paper, clocks, pen, switches and lights. The electronic clipboard is an interface between user and computer for facilitation of remote data entry, information management and communication with a host computer, digital input device or remote pager. The electronic clipboard device comprises a large number of switches and lights beneath a display surface which project various colors, intensities, etc., directly through

the paper form by illuminating formatted paper forms placed firmly on the display surface. The lights transmit signals and status to an operator by displaying different colors as directed by software in a micro processor in response to information entered manually by the operator or received from separate digital input devices and convert a standard piece of paper into a 8.5 in. x 11 in. display device.

McNally discusses the shortcomings of PDA type devices, because they are small in size. It compromises the size and clarity of the operator display medium interface. As the size of the display shrinks, the amount of information displayed is decreased. The smaller display and keyboard results in a non-optimal operator interface, which slows down operation and is unacceptable for time criticality of reservation and wait list management.

The software of this invention is the paper itself, change the paper form line and the clipboard of the invention becomes a different use.

The Examiner has rejected claims 3, 4-6, 13-17 and 22-24 as being obvious over Lovegreen in view of Diem, 5,696,500. Regarding claim 3, the Examiner states that Lovegreen discloses a pager, but Lovegreen does not disclose mode of paging, advertising, and entertainment.

The Examiner states that Diem discloses, in the art of paging system, mode of paging, advertising and entertainment (col. 3, lines 1-27, advertising and playing audio events) to enhance the user satisfaction. Therefore, it would have been obvious to include the mode of paging, advertising and entertainment in the device of Lovegreen as evidenced by Diem because Lovegreen suggests the pager and Diem teaches the mode of paging, advertising and entertainment to enhance the user satisfaction.

Diem relates to a system for transmitting messages and multimedia presentations to a multimedia receiver. The system includes a multimedia messaging terminal which has a controller for the preparation and transmission of a multimedia presentation, composed of multimedia files. The controller is coupled to a memory, for storing the user program text events, graphic events, audio events, and multimedia commands and a multimedia interface. The multimedia interface provides an interface to transfer the multimedia files being transferred from the multimedia terminal to a paging system. There is provided a multimedia receiver that includes a receiver for receiving messages and multimedia commands transmitted over a radio.

The Diem patent identifies a way to send multimedia files using one way RF paging. This could be combined with the Lovegreen system to send multimedia files between the transmitter and receiver or possibly using the McNally transmitter. Diem also includes a data management device (Multi Media Terminal) to organize and configure the RF data before it is transmitted. The device of the present invention is unique because it introduces a communication path that extends beyond the local area network. The interface allows software to be communicated between a remote location anywhere in the world and one of the paging network. Data can be transferred between all components. The system of the present invention is not limited to one way RF communication. The system can use a combination of wireless and wired configurations.

The Diem system is based on one way communication between Transmitter and Receiver. The system of the present invention identifies a system of components that can be used to intercommunicate with each other to create a far reaching communication network for a unique purpose.

The Diem system can be used as a component of the system of the present invention. The system of the present invention can use the Diem system as a communication method between two of the devices, but it would not suffice as the communication method between all of the components. The present invention incorporates other 2 way technologies.

An incorporation of Diem into Lovegreen or other current restaurant paging systems would result in a system that can send multimedia data from the Transmitter located in the restaurant operators hand to the Receiver (or pager) in a customers hand.

Regarding claims 4-6,13-17, the Examiner states that Diem discloses a display (fig. 13, text/graphic display (1220), a user interface (Fig. 13, 1224) and a keypad or touch panel display (col. 10, lines 33-36), and said transmitter can download software through hard media, diskette, telecommunication line and wireless service provider (col. 3, lines 3-27, a set of multimedia commands for a software; col. 5, lines 34-48, diskette in the computer, a set of multimedia commands for a software, Fig. 1- wireless transmission between antenna (110, 112), telecommunication line (col. 4, lines 5-15, a leased phone line)), and said transmitter stores information relating to how and when said receiver was used (col.1, line 42 to col. 2, line 13, transmitter prepares and stores a set of multi-media commands to be used by said receiver.

Regarding claims 4-6, the display and the interface proposed by Diem is limited by the ability to only receive information and control the receiver. The device of the present invention allows two way communication through the interface which allows for revolutionary customer interaction to control the Receiver, Transmitter, Software Programmer and/or Charger.

Regarding claim 13-16, the interface with a transmitter is with regards to importing information to send on the one way RF network. The present invention claims that the transmitter can download information when used in the configuration of the present network.

Regarding claim 17, the Diem Transmitter stores information on how, when and what information was sent to the receiver. The Transmitter of the present invention can store information from the Receiver. The transmitter of the present invention can actually store information on how the customer used the Receiver since the Receiver can transmit that information back to the Transmitter.

Regarding claim 22, the Examiner states that Lovegreen discloses the charger downloads software through hard media. But Lovegreen does not disclose hard media is a diskette or CD. Diem discloses in the art of paging system, said transmitter can download software through diskette (Fig. 4, col. 5, lines 34-48, diskette in the computer workstation). One of skill recognizes a floppy disk in a computer workstation and diskette are equivalent. It would have been obvious to include a diskette in the device of Lovegreen as evidenced by Diem because Lovegreen suggests hard media and Diem teaches a diskette as a hard media of downloading software.

Lovegreen teaches software transfer between the Charger and the Receivers and not the unique ability to transfer the data to remote external devices. Lovegreen's system is a closed system.

In addition, Diem's system does not have a Charger or any similar device. Based on the purpose of the Charger in Lovegreen's system and the size proposed by the

Lovegreen diagrams, it would make sense to have a hard disk storage device as a hard media, but the need for a removable hard media is not needed or anticipated.

Regarding claims 23-24, the Examiner states that Lovegreen discloses said charger downloads software (col. 6, lines 43-51, reprogramming the electronic device) through hard media (Fig. 5; reprogramming the electronic devices through terminals (57 a-b and 58 a-b); Col. 1, lines 49-59; pager; col. 6, lines 43-54, a charger or base unit (10)). Lovegreen does not disclose said charger can download software through telecommunication line and wireless service provider.

Diem discloses, in the art of paging system, said transmitter can download software. (Col. 3, lines 3-27, a set of multimedia commands for a software) through telecommunication line and wireless service provider (telecommunication line (Col. 4, lines 5-15, a leased phone line); Fig. 1, wireless transmission between antenna (110, 112) within the paging environment) as a hard media of downloading software. It would have been obvious to include telecommunication line and wireless service provided in the device of Lovegreen as evidenced by Diem because Lovegreen suggests hard media and Diem teaches telecommunication line and wireless service provider as a hard media of downloading software.

Diem discloses a modem or RS232 interface between the multi-media terminal and the paging terminal, but does not disclose a wireless interface. Lovegreen does not consider a multimedia terminal. The charger of Lovegreen does not communicate with anything but the Receivers.

The only location Diem discusses a wireless interface is between the Paging Transmitter and Paging Receiver and that interface is inherent in a paging system and no one is claiming that it is unique.

Lovegreen relates to a pager system which allows a patron to know when their table or service is ready. The Lovegreen system does not provide any entertainment, games or advertising nor does it provide a display screen for such use. The charger device of Lovegreen only recharges the battery. Lovegreen does not provide the Software Programmer of the present invention.

Diem relates to a multimedia receiver consisting of preprogrammed text events, graphics events and audio events from multimedia files which are encoded. The information is current events/advertisements/entertainment from either a disc, CD or wireless modem. The information is transmitted to the receiver with updated events and the screen provides for advertisements and games. Diem does not provide for a screen to accommodate games or advertisements to the extent for which the present invention does. The present invention provides the patron with recent advertising, games and entertainment. Diem, however, preprograms the events and therefore the old events must be cleared before the new events are entered. The present invention is updated while recharging by either a disc, CD or wireless device. The use of hard media in Diem is to preprogram each event, however, the user of hard media in the present invention is to download current information at any time.

Applicant believes that the application is now in condition for allowance.

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